It was further demonstrated that peptide analogs to the above neuropeptides could actively and selectively induce cell death in the cancer cells. A formulation of peptide combination termed MuJ-7 has also been described which causes tumor regression in xenotransplated nude mice. The individual constituent peptides of MuJ-7 were demonstrated to have anticancer activity.

Please replace paragraph 4 on page 2 with the following:

The VIP receptor binding inhibitor VIP_2 (Leu-Met-Tyr-Pro-Thr-Tyr-Leu-Lys) (SEQ ID NO:1) has been shown in our previous studies incorporated in U.S. Patent 6,156,725 to be a selective cytotoxic peptide for cancer cells having receptors for vasoactive intestinal peptide. Novel peptides that have conformational constraints and resist enzymatic degradation are formed by replacing any of the amino acids of the sequence Leu-Met-Tyr-Pro-Thr-Tyr-Leu-Lys with Dxg. Dxg represents cyclic and acyclic dialkylate glycines where the cyclic ring is C_3-C_8 ring and the number of carbon atoms in the alkyl group is from 1 to 6 (methyl to hexyl). Examples are Aib, MeLeu, Di-ethyglycine and its higher homologs, and 1-amino cycloalkane carboxylic acids. Aib represents α-amino-isobutyric acid. Deg represents di-ethyglycine.

Please replace paragraph 1 on page 3 with the following:

Novel peptides include:

DT-11 Aib-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO:2)
DT-12 D-Leu-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO:3)
DT-13 Leu-Met-Tyr-Pro-Thr-D-Tyr-Leu-Lys-OH (SEQ ID NO:4)
DT-14 Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO:5)
DT-15 Leu-Met-D-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO:6)
DT-16 D-Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO:7)
DT-18 Aib-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:8)
DT-19 D-Leu-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:9)

where Deg and Aib are as defined above.

Please replace paragraph 2 on page 3 with the following:

The bombesing antagonist BOM_1 (D-Phe-Gln-Trp-Ala-Val-Gly-His-Leu-NHEt) (SEQ ID NO:10) has been shown in our previous studies incorporated in U.S. Patent 6,156,725 to be a selective cytotoxic peptide for cancer cells having receptors for bombesin. Novel peptides that have conformational constraints and resist enzymatic degradation are formed by replacing any of the amino acids of the sequence D-Phe-Gln-Trp-Ala-Val-Gly-His-Leu-NHEt (SEQ ID NO:10) with Dxg where Dxg is defined above. Leucine may be replaced with isoleucine and tryptophan may be replaced by D-Tryptophan.

Please replace paragraph 1 on page 4 with the following:

The Substance P analog (D-Arg-Pro-Lys-Pro-D-Phe-Gln-D-Trp-Phe-D-Trp-Leu-Leu-NH_2 (SEQ ID NO:18)) has been shown in our previous studies incorporated in U.S. Patent 6,156,725 to be a selective cyctotoxic peptide for cancer cells having receptors for Substance P. Novel peptides that have conformational constraints and resist enzymatic degradation are formed by replacing any of the amino acids of the sequence D-Arg-Pro-Lys-Pro-D-Phe-Gln-D-Trp-Phe-D-Trp-Leu-Leu-NH_2 (SEQ ID NO:18) with Dxg or Aib. Dxg and Aib are as defined above. Analogs may be 5 to 11 amino acids.

Please replace paragraph 2 on page 4 with the following:

Novel peptides include:

DT-31 Aib-Met-Gln-Trp-Phe-Aib-NH_2 (SEQ ID NO:19)
DT-32 Deg-Met-Gln-Trp-Phe-Aib-NH_2 (SEQ ID NO:20)
DT-33 D-Leu-Met-Gln-Trp-Phe-Aib-NH_2 (SEQ ID NO:21)
DT-34 D-Arg-Pro-Lys-Pro-Aib-Gln-D-Trp-Phe-D-Trp-Aib-Leu-NH_2 (SEQ ID NO:22)
DT-35 Arg-Pro-Aib-Pro-D-Phe-Gln-D-Trp-Phe-D-Trp-Leu-Leu-NH_2 (SEQ ID NO:23)

where Deg and Aib are as defined above.

Please replace paragraph 3 on page 4 with the following:

The somatostatin analog (Ala-Gly-Cys-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Ser-D-Cys (disulfide brideges: 3-14) (SEQ ID NO:24) has been shown in our previous studies incorporated in U.S. Patent 6,156,725 to be a selective cytotoxic peptide for cancer cells having receptors for Somatostatin. Novel peptides that have conformational constraints and resist enzymatic degradation are formed by replacing any of the amino acids of the sequence (Ala-Gly-Cys-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Ser-D-Cys (disulfide bridges:3-14) (SEQ ID NO:24) with Dxg or Aib where Dxg and Aib are as described above.

Please replace paragraph 2 on page 5 with the following:

The somatostatin analog (D-Phe-Cys-Tyr-D-Trp-Orn-Thr-Pen-Thr-NH_2) (SEQ ID NO:26) has been shown in our previous studies incorporated in U.S. Patent 6,156,725 to be a selective cytotoxic peptide for cancer cells having receptors for Somatostatin. Novel peptides that have conformational constraints and resist enzymatic degradation are formed by replacing any of the amino acids of the sequence D-Phe-Cys-Tyr-D-Trp-Orn-Thr-Pen-Thr-NH_2 (SEQ ID NO:26) with Dxg or Aib where Dxg and Aib are as defined above.

In the Claims

Please amend the following claims:

Claim 1 (Twice Amended) A peptide of the sequence Leu^1-Met^2-Tyr^3-Pro^4-Thr^5-Tyr^6-Leu^7-Lys^8 (SEQ ID NO:1) wherein at least one of the amino acids at positions 1-8 is replaced by Deg.

Claim 2 (Once Amended) A peptide having the sequence selected from the group consisting of:

Aib-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO: 2);
D-Leu-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO:3);
Leu-Met-Tyr-Pro-Thr-D-Tyr-Leu-Lys-OH (SEQ ID NO: 4);

Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO: 5);
Leu-Met-D-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO: 6);
D-Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO: 7);
Aib-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO: 8); and
D-Leu-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO: 9).

Claim 33 (Amended) A method for treating breast cancer comprising administering an effective amount of a peptide selected from the group consisting of:

Aib-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO:2);
D-Leu-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO:3);
Leu-Met-Tyr-Pro-Thr-D-Tyr-Leu-Lys-OH (SEQ ID NO:4);
Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO:5);
Leu-Met-D-Tyr-Pro-Thy-Tyr-D-Leu-Lys-OH (SEQ ID NO:6);
Aib-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:8); and
D-Leu-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:9).

Claim 35 (Amended) A method for treating colon cancer comprising administering a peptide selected from the group consisting of:

Leu-Met-D-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO: 6);
D-Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO: 7);
Aib-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO: 8); and
D-Leu-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO: 9).

Claim 34 (Amended) A method for treating breast cancer comprising administering an effective amount of a peptide selected from the group consisting of:

Leu-Met-D-Tyr-Pro-Thy-Tyr-D-Leu-Lys-OH (SEQ ID NO:6);
D-Leu-Met-Tyr-Pro-Thr-Tyr-D-Leu-Lys-OH (SEQ ID NO:7);
Aib-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:8); and
D-Leu-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:9).

Claim 36 (Amended) A method for treating prostate cancer comprising administering a peptide selected from the group consisting of:

D-Leu-Met-Tyr-Pro-Thr-Tyr-Aib-Lys-OH (SEQ ID NO:3);
Aib-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:8); and
D-Leu-Met-Tyr-Pro-Thr-Tyr-Deg-Lys-OH (SEQ ID NO:9).